(§371 of International Application PCT/JP03/07529)

Kenji ADACHI, et al.

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application: Claims 7-9, 20, and 23-29 have been amended as follows:

Listing of Claims:

Claim 1 (original): A room-temperature molten salt comprising a mixture of two or more organic salts with different anionic moieties and different organic cationic moieties, the room-temperature molten salt having a solidifying point lower than that of any of the individual organic salts.

Claim 2 (original): A room-temperature molten salt according to claim 1, wherein the two or more organic salts are selected from the group consisting of the organic salts represented by formulae (I), (II), (III) and (IV):

Kenji ADACHI, et al.

$$R^{1a}$$
 R^{1a}
 R^{5a}
 R^{5a}
 R^{5a}
 R^{10a}
 R^{9a}
 R^{9a}
 R^{10a}
 R^{9a}
 R^{9a}

wherein R^{1a} to R^{5a} , R^{7a} , R^{9a} and R^{10a} are the same or different and each represents a hydrogen atom, a halogen atom, an alkyl group, a cycloalkyl group, a heterocyclic group, a haloalkyl group, an aralkyl group, an aryl group, an alkoxy group, an aryloxy group or an aralkyloxy group; R^{8a} is a hydrogen atom, an alkyl group, a cycloalkyl group, a heterocyclic group, a haloalkyl group, an aralkyl group or an aryl group; R^{6a} , R^{11a} , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} and R^{19} are the same or different and each represents an alkyl group, a cycloalkyl group, a heterocyclic group, a haloalkyl group, an aralkyl group or an aryl group; two groups selected from R^{12} , R^{13} , R^{14} and R^{15} may be linked at their ends to form, together with the adjacent nitrogen atom, a nitrogen-containing aliphatic heterocycle; two groups selected from R^{16} , R^{17} , R^{18} and R^{19} may be linked at their ends to form, together with the adjacent phosphorus atom, a phosphorus-containing aliphatic heterocycle; and X_1 , X_2 , X_3 and X_4 are each a conjugate base of a Brönsted acid.

Claim 3 (original): A room-temperature molten salt according to claim 1 or 2, wherein at

least one of the two or more organic salts is a solid at room temperature.

Claim 4 (original): A room-temperature molten salt according to claim 1 or 2, wherein all of the two or more organic salts are solids at room temperature.

Claim 5 (original): A room-temperature molten salt according to claim 1 or 2, wherein at least one of the two or more organic salts is selected from the group consisting of the organic salts represented by formulae (V) and (VI):

wherein R¹ to R⁵, R⁷, R⁹ and R¹⁰ are the same or different and each represents a hydrogen atom, a halogen atom, an alkyl group, a cycloalkyl group, a heterocyclic group, a haloalkyl group, an aralkyl group, an aryl group, an alkoxy group, an aryloxy group or an aralkyloxy group; R⁸ is a hydrogen atom, an alkyl group, a cycloalkyl group, a heterocyclic group, a haloalkyl group, an aralkyl group

or an aryl group; R^6 and R^{11} are the same or different and each represents a C_{1-10} alkyl group in which at least one hydrogen atom is substituted by fluorine; and X_1^- and X_2^- are each a conjugate base of a Brönsted acid.

Claim 6 (original): A room-temperature molten salt according to claim 5, wherein all of the two or more organic salts are selected from the group consisting of the organic salts represented by formulae (V) and (VI).

Claim 7 (currently amended): A room-temperature molten salt according to claim 5 [[or 6]], wherein at least one of the two or more organic salts is a solid at room temperature.

Claim 8 (currently amended): A room-temperature molten salt according to claim 5 [[or 6]], wherein all of the two or more organic salts are solids at room temperature.

Claim 9 (currently amended): A room-temperature molten salt according to any one of claims 5 to 8 claim 5, wherein, in formulae (V) and (VI), R^1 to R^5 , R^7 , R^9 and R^{10} are the same or different and each represents a hydrogen atom, a halogen atom, an alkyl group or a haloalkyl group; R^8 is an alkyl group; R^6 and R^{11} are the same or different and each represents a group of the formula $-CH_2R^{12}$ wherein R^{12} is a straight- or branched-chain $C_{1.9}$ alkyl group in which at least one hydrogen atom is substituted by fluorine.

Claim 10 (original): A room-temperature molten salt according to claim 6, wherein all of the two or more organic salts are selected from the group consisting of the organic salts represented by formula (V) and are solids at room temperature.

Claim 11 (original): A room-temperature molten salt according to claim 6, wherein all of the two or more organic salts are selected from the group consisting of the organic salts represented

by formula (VI) and are solids at room temperature.

Claim 12 (original): A room-temperature molten salt according to claim 6, wherein the two or more organic salts are at least one organic salt that is selected from the group consisting of the organic salts represented by formula (V) and is a solid at room temperature, and at least one organic salt that is selected from the group consisting of the organic salts represented by formula (VI) and is solid at room temperature.

Claim 13 (original): A room-temperature molten salt according to claim 6, wherein the two or more organic salts are two organic salts that are selected from the group consisting of the organic salts represented by formulae (V) and (VI) and that are solids at room temperature; one of the organic salts having an anionic moiety represented by the formula

(RfSO₂)₂N⁻ or (RfSO₂)(Rf²SO₂)N⁻

wherein Rf and Rf' are different and each represents a polyfluoroalkyl group; and the other of the organic salts having an anionic moiety represented by the formula Rf'SO₃-

wherein Rf' is a polyfluoroalkyl group.

Claim 14 (original): A room-temperature molten salt obtainable by mixing two or more organic salts with different anionic moieties and different organic cationic moieties, the room-temperature molten salt having a solidifying point lower than that of any of the individual organic salts.

Claim 15 (original): A process for producing a room-temperature molten salt, comprising mixing two or more organic salts with different anionic moieties and different organic cationic

moieties, the room-temperature molten salt having a solidifying point lower than that of any of the individual organic salts.

Claim 16 (original): A process according to claim 15, wherein the two or more organic salts are selected from the group consisting of the organic salts represented by formulae (I) to (IV).

Claim 17 (original): A process according to claim 15 or 16, wherein at least one of the two or more organic salts is a solid at room temperature.

Claim 18 (original): A process according to claim 15 or 16, wherein all of the two or more organic salts are solids at room temperature.

Claim 19 (original): A process according to claim 15, wherein the two or more organic salts are selected from the group consisting of the organic salts represented by formulae (V) and (VI) and are solids at room temperature.

Claim 20 (currently amended): An electrolytic solution comprising a room-temperature molten salt according to any one of claims 1 to 14 claim 1 or claim 14.

Claim 21 (original): A battery comprising an electrolytic solution according to claim 20, a positive electrode, a negative electrode and a separator.

Claim 22 (original): A battery according to claim 21, which is a nonaqueous lithium secondary battery.

Claim 23 (currently amended): A solvent for use in organic reaction solvent comprising a room-temperature molten salt according to any one of claims 1 to 14 claim 1 or claim 14.

Claim 24 (currently amended): An extraction solvent comprising a room-temperature molten salt according to any one of claims 1 to 14 claim 1 or claim 14.

Claim 25 (currently amended): A capacitor comprising an electrolyte or electrolytic solution that comprises a room-temperature molten salt according to any one of claims 1 to 14 claim 1 or claim 14.

Claim 26 (currently amended): An electric double layer capacitor comprising an electrolyte or electrolytic solution that comprises a room-temperature molten salt according to any one of claims 1 to 14 claim 1 or claim 14.

Claim 27 (currently amended): A dye-sensitized solar cell comprising a room-temperature molten salt according to any one of claims 1 to 14 claim 1 or claim 14.

Claim 28 (currently amended): A fuel cell comprising a room-temperature molten salt according to any one of claims 1 to 14 claim 1 or claim 14.

Claim 29 (currently amended): A polymer electrolyte fuel cell comprising a room-temperature molten salt according to any one of claims 1 to 14 claim 1 or claim 14.